REMARKS

In the Office Action, the Examiner rejected claims 1-16, 18-27, 29-34, 36-40, 42-45, 47-51, 53-58, 60-76, 86-89, 103, and 107-111 under 35 U.S.C. § 103(a) as being unpatentable over Applicants' alleged admitted prior art ("AAPA") in view of U.S. Patent No. 7,158,498 to Lundby et al. ("Lundby") and U.S. Patent No. 6,341,023 to Puc; rejected claims 7, 17, 28, 41, 52, 77-85, 90-102, and 104-106 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Lundby and Puc and further in view of U.S. Patent No. 7,058,246 to Joyner et al. ("Joyner"); rejected claims 35, 46, 59, and 93 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Lundby and further in view of Puc, and U.S. Patent No. 5,191,410 to McCalley et al. ("McCalley").

Applicants have cancelled claims 6, 8-22, 27, 29-33, 35, 40, 42-57, 63, 65-69, 71-76, and 86-111 without prejudice or disclaimer of the subject matter thereof; and amended claims 1, 23, 34, 36, 41, 58, 59, 64, 70, 77, and 82. Claims 1-5, 7, 23-26, 28, 34, 36-39, 41, 58-62, 64, 70, and 77-85 are pending in the above-captioned patent application.

At the outset, Applicants note that claim 1 has been amended to recite "inserting data into each of the N segments, the data indicating a start location associated with said each of the N segments." Similar changes have been made to independent claims 23, 34, 58, and 70. Support for these claim changes may be found, for example, in paragraph [0029] of the specification. ("[A] pattern of additional data is placed in each of the N signal segments as overhead to allow detection of a start location at a receiver.")

Before addressing each of the above noted rejections on the merits, Applicants respectfully note that, to the extent the above rejections are applicable to claims 6, 8-22,

27, 29-33, 35, 40, 42-57, 63, 65-69, 71-76, and 86-111, such rejections are moot in light of the cancellation of these claims.

Applicants respectfully traverse the Examiner's rejection of claims 1-16, 18-27, 29-34, 36-40, 42-45, 47-51, 53-58, 60-76, 86-89, 103, and 107-111 under 35 U.S.C. § 103(a) as being unpatentable AAPA in view of Lundy. Amended claim 1, for example, is not obvious over AAPA, Lundby and Puc because none teaches or suggests each and every limitation of the claim. In particular, each of AAPA, Lundby and Puc fails to disclose "inserting data into each of the N segments, the data indicating a start location associated with said each of the N segments," as recited in amended claim 1.

The description of AAPA Fig. 3 in the specification does not disclose the claimed "segments" and is certainly silent as to the claimed inserting data into such segments, as recited in amended claim 1. Moreover, Lundby teaches interleaving the encoded outputs of demultiplexer 104 (see interleavers 106 and 108 in Fig. 1), but does not disclose inserting data into such outputs for locating the start of a segment. Further, the multi-level formatter 130 shown in Fig. 2 of Puc apparently includes circuitry that generates an analog signal (D/A converter 132), but also does not add data indicating the start of a segment. Thus, each of AAPA, Lundby, and Puc fails to teach or suggest the claimed "inserting data into each of the N segments, the data indicating a start location associated with said each of the N segments," as recited in amended claim 1.

Amended independent claims 23, 34, 58, and 70, while of different scope, recites features similar to those recited in claim 1. Claims 23, 34, and 58, and 70, therefore, are allowable at least for reasons discussed above in regard to claim 1, and claims 2-5,

7, 24-26, 36-39, 60-62, and 64 are allowable at least due to their corresponding dependence from claims 1, 23, 34, 58, and 70.

Applicants respectfully traverse the Examiner's rejection of claims 7, 17, 28, 41, 52, 77-85, 90-102, and 104-106 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Lundby and Puc and further in view of Joyner; and the rejection of claims 35, 46, 59, and 93 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Lundby and further in view of Puc, and McCalley. The Examiner relies on Joyner for teaching "monolithic photonic integrated circuit chips ..." (see Office Action at page 8) and McCalley for allegedly teaching "demultiplexing the FEC decoded multiplexed M signal into a plurality of M signals ...." Such teachings, however, even if combinable in the manner proposed by the Examiner, would still fail to teach or suggest the claimed "inserting data into each of the N segments, the data indicating a start location associated with said each of the N segments," as recited in amended claim 1, as well as related limitations recited in claims 23, 34, 58, and 70. Claims 7, 28, 41, 59, and 77-85 are therefore allowable at least due to the corresponding dependence from claims 1, 23, 34, 58, and 70.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 50-2022.

Respectfully submitted,

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